-continued

(ZONES 1).

Having now described a limited number of embodiments of the present invention, it should now be apparent to those skilled in the art that numerous other embodiments and modifications thereof are contemplated as falling within the scope of the present invention as defined by the appended claims.

What is claimed is:

1. In a computer system including a central processor, a memory and an interactive user terminal having a display unit, said memory storing a memory image of a number of control structures distributed in an unpredictable manner as a result of running a given operating system on the computer system, said control structures containing information used by said operating system and user routines at the time said memory image was created, a process for enabling a user to locate and display said control structures within said memory image, said process comprising the steps of:

storing an interrogation routine in said memory to be responsive to user commands entered by said interactive user terminal;

storing in a descriptors file separate from said interrogation routine in said memory, a plurality of descriptors which describe the control structures for said given operating system, said step of storing a plurality of descriptors including storing descriptive information which names the control structures for identification and reference by said interrogation routine, descriptive information defining a hierarchical description by which a specified control structure is locatable by said interrogation routine and field defining information that defines the purpose, size and translation of pats of each control structure;

accessing said descriptors by said interrogation routine for control structures contained in said memory image in an order specified by said user commands;

interpreting the accessed descriptors by said interrogation routine in response to said user commands, to locate for display in human readable form on said display unit, specified control structures within said memory image using said descriptive information and said field defining information; and

displaying said specified control structures in human readable form on said display unit.

2. A process as set forth in claim 1 including storing statements including selection statements which allow automatic selection of the appropriate description from a plurality of descriptors of a common type.

3. A process as set forth in claim 2 including storing statements including accumulator and calculation statements related to the control structure which allow the interrogation routine to process a specified control structure and to access subsequent control structures.

4. A process as set forth in claim 1 wherein the step of interpreting the accessed descriptors includes interpreting the accessed descriptors to generate a display of control structure field offset, field name and field data.

5. A process as set forth in claim 1 wherein the step of interpreting the accessed descriptors includes interpreting the accessed descriptors to generate a display of control structure field offset, field name, field data and field description.

6. The process of claim 1 wherein said memory image represents a dump file.

7. The process of claim 1 wherein said plurality of descriptors describe control structures for a number of different versions of said given operating system and said step of accessing includes accessing said descriptors for a version of said given operating system which produced said memory image.

8. The process of claim 1 wherein said plurality of descriptors describe control structures for a number of different operating systems and wherein said step of accessing includes accessing said descriptors for said operating system which produced said memory image.

9. In a computer system including a central processor, a memory, software comprising a plurality of software components, a user terminal having a video display unit and an interrogation routine in said memory, a method for location and display of memory resident control structures containing information as to content and location in said memory of said software components of said computer system, in response to user commands supplied through the user terminal to the interrogation routine without requiring the interrogation routine to have knowledge of the content and requirements of each control structure, said method comprising the steps of:

storing a plurality of descriptors, each including a collection of descriptive statements describing the control structures referenced by the interrogation routine, in a descriptors file separate from said interrogation routine, the step of storing a plurality of descriptors including storing descriptive statements which name the structures for identification and reference by the interrogation routine and by other control structures and storing selection statements which allow automatic selection of the appropriate descriptor from a plurality of descriptors of a common type;

accessing the descriptors in the descriptors file in a predetermined order specified by previously-accessed descriptors or by said interrogation routine;

calculating values in response to descriptive statements in said descriptors which allow the interrogation routine to process a specified control structure and to access subsequent control structures; and

generating on said video display unit a display of the memory resident control structures in response to the descriptive statements of the accessed descriptors.

10. A method as defined in claim 9 wherein the step of storing a plurality of descriptors includes storing descriptive statements defining a hierarchical description by which a specified control structure is locatable by the interrogation routine and by other control structures.

11. A method as defined in claim 9 wherein the step of storing a plurality of descriptors includes storing descriptive statements that define the purpose, size and translation of the components of each control structure.

12. A method as defined in claim 9 wherein the step of storing a plurality of descriptors includes storing accumulator and calculation statements related to the con-